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SOLIDAGO JEJUNIFOLIA (ASTERACEAE: ASTEREAE) NEW TO MANITOBA AND CANADA

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ABSTRACT

The presence of *Solidago jejunifolia* is reported for the first time in Canada, from south of Winnipeg, Manitoba, near the Minnesota border. This species has not been given special status in Canada but should be considered endangered.

KEY WORDS: *Solidago jejunifolia, Solidago speciosa, Solidago rigidiuscula, Solidago pallida,* Manitoba, Canada, rare plants

A collection of what was thought to possibly be *Solidago uliginosa* Nutt. was made by B.A. Ford and D. and C.E. Punter on 1 September 1996 from northwest of Senkiw, north of Roseau River, Manitoba, Canada (49° 12' 40" N, 96° 53' 42" W). A digital image of the collection *Ford, Punter, & Punter 9656,* WIN (Fig. 1) was sent to J.C.S. for identification in the fall of 2012. The specimen was immediately recognized as *S. jejunifolia* Steele, a member of the *S. speciosa* Nutt. complex, on the basis of it having typical *Solidago* subsect. *Squarrosae* A. Gray traits of large basal stem and rosette leaves and a club to wand-shaped inflorescence and in having the diagnostic long, narrow petioles of *S. jejunifolia* (Fig. 2).

Solidago jejunifolia was treated as a synonym of *S. speciosa* var. *speciosa* by Semple and Cook (2006). However, a multivariate morphometric analysis of the *S. speciosa* complex and all taxa in subsect. *Squarrosae,* and separate multivariate studies on all subsections of the genus, have resulted in a change in understanding of species limits in the genus. The *S. speciosa* complex is now divided into four species: *S. speciosa, S. jejunifolia, S. pallida* (Porter) Rydb., and *S. rigidiuscula* (Torr. & A. Gray) Porter (see Semple et al. 2012).

Solidago jejunifolia grows in tall grass prairies, open areas in dry jack pine (*Pinus banksiana*) forests (Fig. 3A) and rejenerating jack pine forests, sand barrens, open pine plantings, dry prairie/savannahs, oak savannahs, roadsides, sandy dune areas, old fields, roadsides, road right-of-way embankments next to red pine (*Pinus resinosa*) and jack pine trees (Fig. 3B); based on herbarium label data (MIN, WAT, WIN; Thiers, continuously updated). It has been collected on reddish and pale brown sandy or gravelly soils.

Solidago jejunifolia has not been given special conservation status in Canada or Manitoba, but it should be considered endangered (N1, S1, respectively) based on Nature Conservancy rankings (http://www.natureserve.org/explorer/ranking.htm). The status of the single known Manitoba population is uncertain and the habitat may have been converted to agricultural uses.

Figure 1. *Solidago jejunifolia* voucher (*Ford, Punter, & Punter 9656,* WIN).

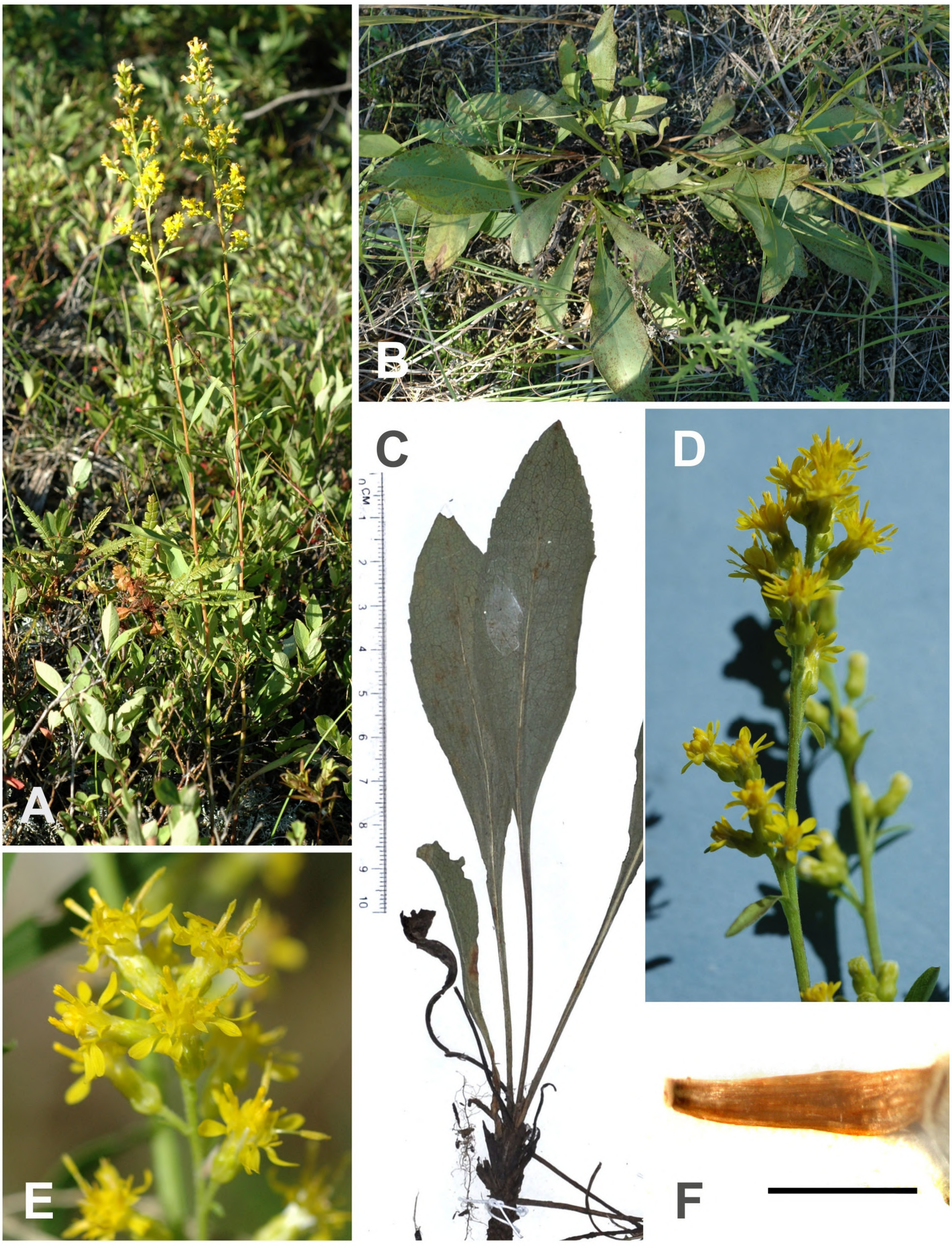

Figure 2. *Solidago jejunifolia* morphology. **A.** Shoots, Cheboygan Co., Michigan (*Semple 11844,* WAT). **B.** Basal leaves, Sherburne Co., Minnesota (*Semple 11850,* WAT). **C.** Basal leaves (*Converse 1906,* MIN). **D.** Flowering heads, Douglas Co., Wisconsin (*Semple 11848,* WAT). **E.** Flowering heads, Cheboygan Co., Michigan (*Semple 11839,* WAT). **F.** Cypsela (*Semple 1150,* WAT); scale bar = 1 mm.

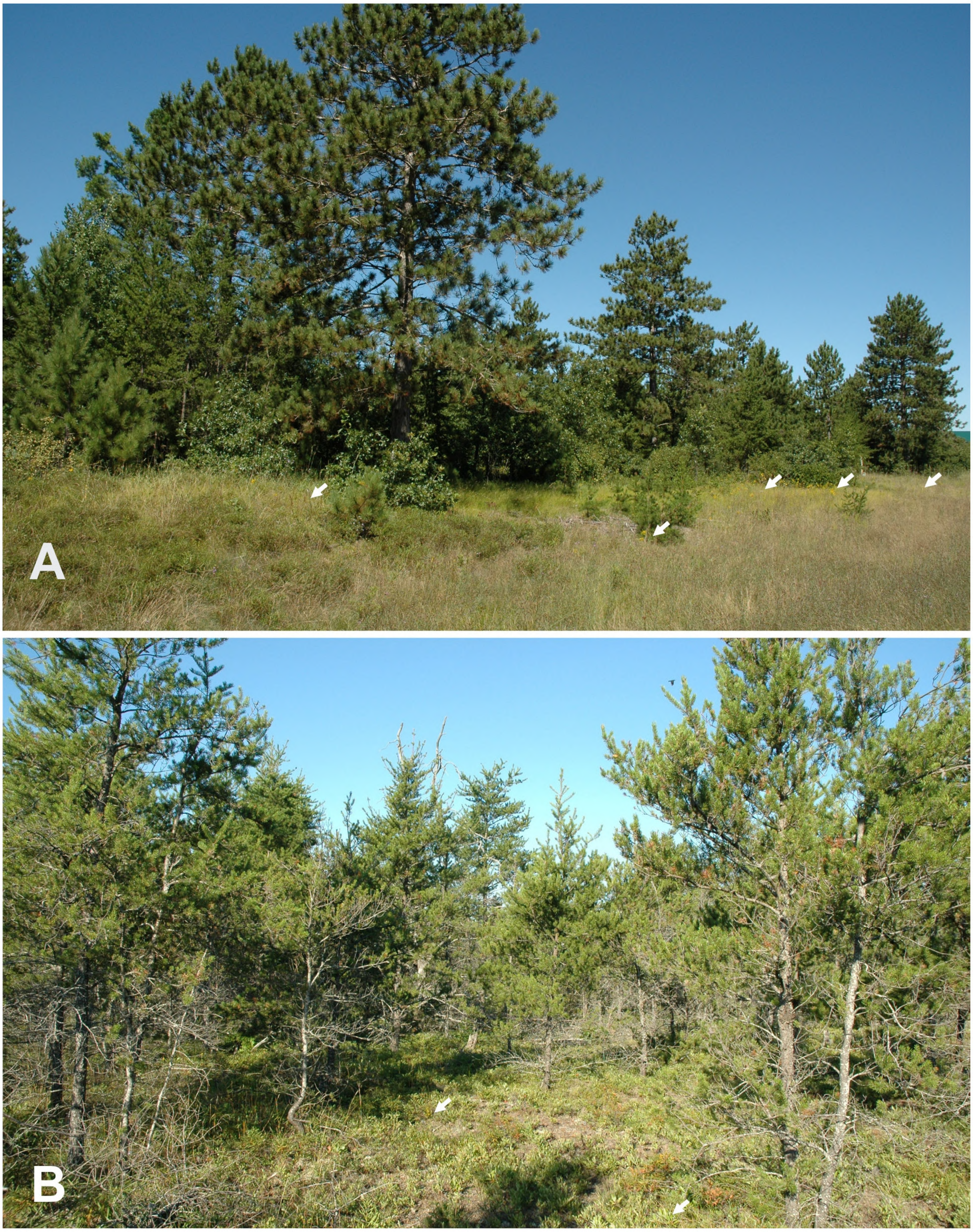

Figure 3. *Solidago jejunifolia* habitats. **A.** Douglas Co., Wisconsin (*Semple 11848,* WAT). **B.** Delta Co., Michigan (*Semple 11844* ,WAT). Arrows indicate locations of some of the plants in the populations.

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